EQUALITY IMPACT ASSESSMEMT

Reference: CCC583651929

Directorate: Place and Sustainability

Service: Transport & Infrastructure Policy & Funding

Team: Transport and Infrastructure Policy

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Proposal being assessed: Electric Vehicle Charging Cable ‘Crossing-Over’ Pilot

Business plan proposal number: n/a

Key service delivery objectives and outcomes :

In May 2019, Cambridgeshire County Council declared a Climate and Environment Emergency, setting us on a pathway to securing a sustainable future for our County and its residents. It committed us to achieving net zero in Cambridgeshire by 2045, through decarbonising our communities and businesses. In response to this, a Climate and Environment Strategy was developed and adopted in 2022, which provides a framework for this change and puts climate change and biodiversity at the heart of the council's work.

In order to become a net zero area by 2045, one of the strategic priorities of the strategy is to enable and encourage the use of low-carbon transport, which includes electric vehicles (EVs). Government has announced the sale of new petrol and diesel cars and vans will be banned from 2035 in a bid to accelerate the transition to cleaner low emission vehicles. Whilst still forming a relatively small percentage of overall vehicles, absolute numbers of new EVs registered to addresses in Cambridgeshire have been growing exponentially in recent years and these figures are only going to get larger, particularly as second and third hand markets for these types of vehicles begin to emerge.

To support this, there will need to be a step change in the provision of electric vehicle charging infrastructure across the network, particularly those available for public use and infrastructure for use by residents who do not have access to off-street parking. The amount of EV charging infrastructure has not grown at the same rate as the uptake of the vehicles themselves and this is seen as one of the barriers that could slow the transition to EVs. As of 2023, there are some 350 publicly available chargepoints in Cambridgeshire. This figure will need to rise considerably to stimulate and keep pace with demand. Furthermore, at the current time, there is no legal means available for residents without off-street parking to charge their electric vehicle from their domestic electricity tariff, whilst parked on the public highway. This means that such residents are wholly reliant on charging from more expensive public chargepoints.

What is the proposal:

Government is keen to accelerate the delivery of electric vehicle charging infrastructure in order to provide confidence in the market and stimulate demand for the transition to EVs.

It is recognised that EVs have a role to play in meeting our net zero targets and that there will be considerable benefits brought to our cities and towns through improved air quality. Nonetheless, our area also has other transport challenges relating to congestion, health outcomes and connectivity that need to be balanced against facilitating the infrastructure needs of EVs, ensuring that they sit within the road user hierarchy adopted in the Local Transport Plan. We must also ensure that highway assets which we are responsible for aren't adversely compromised and that the maintenance burden to the local highway authority is not increased.

In December 2023, Cambridgeshire County Council Highways and Transport Committee adopted an On-street Electric Vehicle Infrastructure Policy to guide the acceptability and installation of EV infrastructure on the public highway. The policy was considered necessary due to the plethora of new and emerging technologies on the market designed to address some of the challenges that a lack of off-street parking poses, which has an impact on us as local highway authority. The policy explicitly excluded the use of any 'cross-over' solutions such as cable mats, overhead hanging cables or gullies, until such time as the council had undertaken its own pilot. This was due to the unknown legal, liability and maintenance implications that such new infrastructure may create.

As a condition of the adoption of the policy, Members required that a pilot was developed to investigate in more detail the acceptability or otherwise of potential cable cross-over technology as a means of enabling residents to charge their electric vehicle using domestic electricity tariffs whilst the vehicle is parked on public highway.

The framework for this pilot is the subject of this proposal.

What information did you use to assess who would be affected by this proposal?:

There are two aspects of this proposal that could impact people adversely if not properly considered.

The first is the physical change the technology has on the footway and the impact this has on people using it. One of the overarching principles set out in the adopted On-street Electric Vehicle Infrastructure Policy is that infrastructure that is intended for active travel should not be negatively affected by infrastructure intended for vehicles.

The second is the impact the proposal would have on certain socio-economic groups if they are excluded from access to domestic electricity tariffs as the EV market matures and a second and third hand market for these vehicles emerges in the mid to longer term. Those groups of people who can't afford to live in properties that have off-street parking will be forced to pay higher tariffs to charge their vehicles at publicly accessible chargepoints if a solution that allows them to connect to their domestic tariff whilst their car is parked on the public highway is not developed.

In considering these aspects, data was sought on car ownership and access to a vehicle, data around people who walk, wheel and cycle, studies and research carried out by campaign groups and groups representing people with protected characteristics.

Data was also sought on the availability of off-street parking, to understand the extent to which residents may not have access to off-street parking and how this policy might impact them.

Are there any gaps in the information you used to assess who would be affected by this proposal?: No

Does the proposal cover:

All staff countywide, All service users/customers/service provision countywide

Which particular employee groups/service user groups will be affected by this proposal?:

It is intended that this pilot is rolled out across the whole county in order to properly assess the impact of the trial in different areas and with different styles of property. It can be argued that all user groups across the county will be affected by this policy as all service users use the public highway, whether this is on foot, bike, wheelchair, public or shared transport or private vehicle. Because the cross-over pilot by definition impacts the footway, then negative impacts are more likely for these user groups.

The impact of being able to charge an electric vehicle from a domestic electricity tariff will affect electric vehicle owners, drivers and passengers.

Does the proposal relate to the equality objectives set by the Council's Single Equality Strategy?: Yes

Will people with particular protected characteristics or people experiencing socio-economic inequalities be over/under represented in affected groups:

Mixture of over/under represented and in line with population, depending on the group

Does the proposal relate to services that have been identified as being important to people with particular protected characteristics/who are experiencing socio-economic inequalities?:

Yes

Does the proposal relate to an area with known inequalities?:

Don't know

What is the significance of the impact on affected persons?:

Because the cross-over channels are located in the footway, the greatest impact is likely to be on pedestrians or those who use wheeled modes such as wheelchairs, mobility scooters or who are encumbered with pushchairs. The impact of additional street furniture can be significant for groups with disabilities.

The Disabled Citizen's Inquiry, funded by the Motability Foundation and undertaken by Sustrans, researched the impact on environment for disabled people and found that: 41% of disabled people in the UK often experience problems reaching their destination due to the accessibility of the environment around them on a typical walking or wheeling journey, increasing to 55% for people with mobility impairments or learning disabilities; 58% of deaf or hard of hearing people and 64% for blind or visually impaired people.

The significance of issues for disabled people with street clutter and obstacles is further nuanced by the intersectionality of other protected characteristics, such as

sex and ethnicity. The same research found that 45% of disabled women, compared to 35% of disabled men experience difficulty getting to their destination. This reflects wider enduring trends around the gendered division of unpaid labour and caring responsibilities still overwhelmingly lying with women. Whether or not they are disabled, women tend to be more encumbered by travelling with prams and pushchairs, small children or elderly people they are caring for.

Disabled women can feel the double impact of their gender and disability. Disability when it intersects with ethnicity also exacerbates the difficulties that white disabled people encounter in additional obstacles in the environment. 53% of disabled people of colour often experience difficulties reaching their destination due to accessibility, compared to 32% of white disabled people. Furthermore, the Disabled Citizen's Inquiry also found that when disability intersects with socio-economic factors such as low income, then the cumulative impact can be seen, with a considerably higher proportion of disabled people in socio-economic groups D and E often experiencing negative impacts.

There is both a potential positive and negative impact of the trial that is related to socio-economic status. Properties that have space for off-street parking have a larger curtilage and generally are more expensive than those that do not. The types of property that are likely to benefit from this trial mean that there are likely to be more people in a lower socio-economic group than in areas where the prevailing property type allows for more off-street charging. Those in lower socio-economic groups are more likely to need to use the footway and be impacted by intersectionality issues identified, therefore any negative impacts of the cross-over trial are likely to be significant.

The converse of this negative impact is that the implementation of the trial gives a positive impact to these groups, especially as the EV market matures into second and third hand vehicles and internal combustion engine vehicles are phased out. Enabling residents in these groups to access significantly cheaper electricity tariffs by charging from their domestic supply would help to ensure a just transition to electric vehicles. Furthermore, as the transition to fleet and Motability vehicles is likely to accelerate faster than for private vehicles, people who use a commercial vehicle for work or need an adapted vehicle to remain mobile with a disability may be able to benefit from cheaper home charging.

There could also potentially be a significant impact on people living in rurally isolated areas, such as small villages which often have a range of properties that don’t have off-street parking. Public chargepoints tend to be much less commercially viable in such areas so the ability to charge a vehicle, regardless of cost isn’t there at all.

Through developing an acceptable solution that can help address this market failure is likely to have a positive impact on people living in rural areas.

Category of the work being planned:

Project

Is it foreseeable that people from any protected characteristic group(s) or people experiencing socio-economic inequalities will be impacted by the implementation of this proposal (including during the change management process)?:

Yes

Please select: Age, Disability, Sex, Socio-economic inequalities

Research, data and /or statistical evidence:

Research relating to age:

Public Health England: Working together to promote active travel (2016)

Sustrans: The Greater Cambridge Walking and Cycling Index (2021)

Possible: Streetspace Invaders: mitigating the growing risk that EV charging poses to scarce pedestrian space (2023)

Research relating to disability:

DfT: Walking and cycling statistics factsheet (2021)

Research Institute for Disabled Consumers: Going electric? Research report into the accessibility of electric vehicles (2021)

Motability: The Transport Accessibility Gap (2022)

Sustrans: The Disabled Citizen's Inquiry (2022)

Sustrans: The Greater Cambridge Walking and Cycling Index (2021)

Possible: Streetspace Invaders: mitigating the growing risk that EV charging poses to scarce pedestrian space (2023)

Research relating to sex:

DfT: Walking and cycling statistics factsheet (2021)

Sustrans: The Disabled Citizen's Inquiry (2022)

Women's Budget Group: Towards gender inclusive and sustainable transport systems (2021)

International Transport Forum: Transport Innovation for Sustainable Transport - a gender perspective (2021)

Sustrans: The Greater Cambridge Walking and Cycling Index (2021)

Invisible Women by Caroline Criado-Perez Invisible Women | Caroline Criado Perez

Possible: Streetspace Invaders: mitigating the growing risk that EV charging poses to scarce pedestrian space (2023)

Research relating to socio-economic status:

DfT: Walking and cycling statistics factsheet (2021)

Sustrans: The Disabled Citizen's Inquiry (2022)

The Health Foundation: Trends in households without access to a car (2021)

Sustrans: The Greater Cambridge Walking and Cycling Index (2021)

Possible: Streetspace Invaders: mitigating the growing risk that EV charging poses to scarce pedestrian space (2023)

Consultation evidence:

Research Institute for Disabled Consumers: Going electric? Research report into the accessibility of electric vehicles (2021) Appendix C sets out questions used in survey to inform research.

Designability: Design guidance accessible EV charging (2022) Engaged with 200 Motability scheme members

Sustrans: The Disabled Citizen's Inquiry (2022) The appendix of this report sets out the methodology used, details questions asked at workshops and criteria for people invited to participate in workshops.

Sustrans: The Greater Cambridge Walking and Cycling Index (2021) Includes the questions and results of an attitudinal survey conducted June-August 2021

Based on all the evidence you have reviewed/gathered, what positive impacts are anticipated from this proposal?:

The development of this trial seeks to address the increasing problem of charging cables being trailed unsafely across the footway in order for residents to benefit from domestic electricity tariffs whilst their vehicle is parked on the public highway. It is considered that by trialling and assessing these new technologies in a managed way allows the local highway authority to address any negative impacts identified and is preferable to the unmanaged practice of trailing cables across footways. As the propensity of electric vehicles increases and the market evolves, this is likely to be an increasing problem in areas where properties typically don't have access to off-street parking.

In doing this, the positive impacts that can be anticipated from this policy can be summarised as:

- Space and usability of footways being preserved for pedestrians, wheelchair users and pushchairs:

  The evidence cited elsewhere in this EqIA consistently cites the encroachment of vehicles and associated infrastructure, along with other street clutter on footways as a reason that getting around can be particularly difficult for certain groups. Through exploring through this trial some of the emerging technologies that are coming on to the market, the aim is to proactively mitigate the impacts of trailing cables being used inappropriately and introducing hazards on the footway. In formally assessing these technologies, the local highway authority can be more prescriptive about what is and isn't acceptable on jts asset and help drive market development of these solutions.

  Through proactively investigating potential solutions, it will ensure that the needs of disabled groups, elderly people, and those with the majority of caring responsibilities – statistically the significant majority of whom are females - are not eroded through inappropriate placement of cables, trip hazards and further degradation of the active travel environment.

- Enabling residents to charge an electric vehicle from a domestic electricity tariff means that there is a more equitable transition to EVs. As the market matures and a second and third hand market emerges as petrol and diesel vehicles are phased out, the ability to use cheaper domestic electricity tariffs will ensure that people on lower incomes aren't disadvantaged by being forced to charge their vehicles from more expensive public chargepoints.
- Drivers with disabilities who make use of the Motability scheme may have more choice in how and where they charge their vehicle.

Based on consultation evidence or similar, what negative impacts are anticipated from this proposal?:

The following negative impacts could be anticipated through the trial of different products:

- Additional trip hazards being introduced on footways:

  The introduction of products in the trial into the footway could introduce unintended trip hazards if the product is not fully flush with the footway or if the product is not used correctly. If this were to occur, statistics show this impact would adversely affect disabled groups, older groups and female groups.

How will the process of change be managed?:

This type of technology is very new to the market and many authorities are in a similar position to us in developing an understanding of the suitability or otherwise of individual products. There is currently no steer from central government on the acceptability or otherwise of these products.

To manage the change and minimise any negative impacts of the trial, in the first instance we will engage with other authorities already trialling various cross-over solutions in order to understand issues that have arisen during their own pilots. This will ensure that we do not trial any product that is already perceived to have unacceptable negative impacts for people using the footway.

The pilot will operate across the whole of the County, to ensure that the solutions are tested across a range of streetscapes and housing archetypes. Residents will be recruited to take part on a first come – first served basis, and assessed for suitability, until the maximum number is reached for that District area.

How will the impacts during the change process be monitored and improvements made (where required)?:

Feedback and monitoring of the pilot will take place throughout, and we shall actively engage with local groups representing people with protected characteristics to ensure that they are aware of the opportunity to be part of the trial. Participants will be asked to provide their views on a range of criterion including application process, costs, comments on the solution they are testing and any suggestions for improvements. Consideration will also be given to undertaking a targeted survey of residents in areas where the pilots are taking place to understand any concerns from

those using the footway but not part of the pilot. Again, we will actively seek out local groups representing people identified in this EqIA who could be negatively impacted by the trial to help assess its success or otherwise. The results will be used to shape next steps and inform decisions on wider roll out.

Equality Impact Assessment Action Plan:

Details of negative impact (e.g. worse treatment/outcomes)	Groups affected	Severity of impact	Action to mitigate impact with reasons/evidence to support this or justification for retaining negative impact	Who by	When by
If the crossover-solution that is trialled is not properly flush with the footway, thus creating a trip hazard, then the greatest impact is likely to be on pedestrians or those who use wheeled modes such as wheelchairs, mobility scooters or who travel with pushchairs.	Age, Disability, Sex, Socio-economic inequalities	High	Excluding any cross-over solutions from the trial that do not provide a fully flush solution within which a charging cable can be housed. Ensuring that special attention is given to the installation at the edges of the footway.	Sarah Hatcher	01/07/24
If the cross-over solution selected for the trial is not properly used by the resident, this could introduce a trip hazard, even if the product itself has been properly installed. This impact is likely to be greatest for pedestrians or those who use wheeled modes such as wheelchairs, mobility scooters or who travel with pushchairs	Age, Disability, Sex, Socio-economic inequalities	High	A user agreement will be developed which the resident will need to sign, before a trial installation will take place. It will contain terms and conditions of use and stipulate the measures that will need to be taken to minimise the risk of introducing trip hazards on the footway through misuse. An inspection regime will be developed	Sarah Hatcher	01/07/24

Details of negative impact (e.g. worse treatment/outcomes)	Groups affected	Severity of impact	Action to mitigate impact with reasons/evidence to support this or justification for retaining negative impact	Who by	When by
			to monitoring compliance during the trial.		

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Confirmation: I confirm that this HoS is correct

Status: Approved